

REMARKS

Summary of Office Action

In the Office Action, the Examiner rejected Claims 1-7 and 10-18 under 35 U.S.C. SS 103(a) as being unpatentable over U.S. Patent No. 4,574,084 issued to Berger (hereinafter "Berger") in view of U.S. Patent No. 5,782,992 issued to Frangione (hereinafter "Frangione"). No other issues were presented.

Applicant's Response

1. Section 103(a) Rejection of Claims 1-7 and 10-18

The Examiner contends that Berger teaches a process for the preparation of a stabilized, modified aqueous chlorite solution, with a peroxy compound, such as hydrogen peroxide. *Office Action*, Page 3. The Examiner, however, admits that Berger does not teach the use of surfactants and lubricating polymers. *Id.* In order to overcome this deficiency, the Examiner cites Frangione and asserts that Frangione teaches the use of a chlorite compound, such as sodium chloride or hydrogen peroxide, in a contact lens formulation. *Id.* The Examiner further submits that Frangione discloses the use of lubricating polymers and surfactants. *Id.*

Applicant's independent Claim 1 currently recites, *inter alia*, "An anti-microbial composition ... wherein the composition remains intact **without degrading the chlorite compound into chlorine dioxide...**"

Applicant respectfully submits that Berger does not disclose an anti-microbial composition wherein the chlorite compound does not degrade into chlorine dioxide. In fact, as is currently understood, the Berger patent is replete with statements indicating that **the formation of chlorine dioxide provides the beneficial disinfecting property**. See, e.g., Column 3, lines 41-43 ("...chlorine dioxide removal...leads to an undesired weakening of the system in the sense of the invention"); Column 5, lines 5-6 ("This finished solution contains approximately 100g of chlorine dioxide per liter."); Column 6, lines 21-30

("...chlorine dioxide, which is highly effective for disinfection purposes, is formed...The finished solution generally contains 8 to 15% by weight of chlorine dioxide, the range 10 to 12% by weight being regularly particularly advantageous."); Column 9, lines 11-28 ("...the stabilized, modified, aqueous chlorite solution according to the invention can be advantageously used wherever it is to lead to an oxidative action, particularly due to the formation of chlorine dioxides...A particular advantage of the chlorite solution according to the invention is that it generally permits a **100% conversion of the chlorite into chlorine dioxide** in a wide pH-range...").

It is known within the art that acidification of an aqueous sodium chlorite solution generates chlorine dioxide and the color of the resulting solution becomes greenish, exactly as is described in the Berger patent. *See, e.g.*, Column 4, lines 23-33 ("After some time, there is a yellow-brown coloring as a result of the proportionally released chlorine dioxide...after a short time the desired greenish coloring of the clear aqueous solution reappears. This means that...the chlorite solution always re-forms chlorine dioxide..."); Column 2, lines 24-29 ("According to the invention...a weak acid aqueous solution of a peroxy compound...is provided and into this solution is metered an aqueous solution of a chlorite until the pH-value of 7 is exceeded, accompanied by the formation of a greenish solution.").

In contrast, the presently claimed invention describes a sodium chlorite/hydrogen peroxide composition at neutral pH, thereby **producing no chlorine dioxide**. The presence of chlorine dioxide would make the solution both irritating and toxic for use in the eye or on the skin. It has been shown that exposure of chlorine dioxide of greater than 0.1 ppm for more than a few hours in a contact lens disinfection system causes the contact lenses to become distorted while also enhancing the deposition of proteins on the contact lens, making them non-useable.

Accordingly, Berger does not disclose a composition wherein chlorine dioxide is not formed, and in fact only discloses an acidic composition wherein chlorine dioxide is formed, and as such would seem to teach away from a composition lacking chlorine dioxide. As such, Applicant respectfully submits that Berger does not teach or suggest at least the above-referenced feature of the currently claimed invention. Further, Frangione does not in any

way fulfill this deficiency by teaching or suggesting a composition as currently claimed, as the Frangione invention also generates chlorine dioxide.

Accordingly, Applicant submits that no proper combination of Berger and Frangione discloses or suggests at least the above-noted features of the present invention, and thus, the rejection of at least independent Claim 1 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Applicant further submits that the Claims 2-7 and 10-18 are allowable at least for the reason that these claims depend on allowable independent Claim 1 and because these claims recite additional features that further define the present invention.

Conclusion

Applicant respectfully submits that each and every pending claim of the present invention meets the requirements for patentability under 35 U.S.C. § 103, and respectfully requests that the Examiner indicate allowance of each and every pending claim of the present invention.

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious Applicant's invention as recited in each of Claims 1-7 and 10-18. The applied references of record have been discussed and distinguished, while significant claim features of the present invention have been pointed out.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

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Attorney Docket: KARAG-007B2

If any additional fee is required, please charge Deposit Account Number 19-4330.

Respectfully submitted,

Date: 4/23/07 By: 

Customer No.: 007663

Kit M. Stetina
Registration No. 29,445
STETINA BRUNDA GARRED & BRUCKER
75 Enterprise, Suite 250
Aliso Viejo, California 92656
Telephone: (949) 855-1246
Fax: (949) 855-6371

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